

CLAIMS

1. A method of mobility and service recovery for a user in a wireless communication network, said method comprising:

storing service information concerning the user in a registrar;

sending a subscription message from a user terminal to the registrar, a header in the subscription message containing a unique indication; and

in response to said subscription message containing a unique indication in a header, returning a notification message to the user terminal, the payload of said notification message including service information for the user to be used by the user terminal for communication services.
2. The method as claimed in claim 1, wherein the user has a plurality of ongoing communication services at the time that the subscription message containing a unique indication in a header is sent.
3. The method as claimed in claim 2, wherein the payload of said notification message includes service information for each one of said ongoing communication services.
4. The method as claimed in claim 1, wherein said subscription message is sent after said user terminal experiences a failure.

5. The method as claimed in claim 4, wherein said service information included in the payload of said notification message enables recovery of communication services to their state at the time of said terminal failure.

6. The method as claimed in claim 1, wherein said subscription message is sent by a new terminal after said user switches terminals from a previous terminal to said new terminal.

7. The method as claimed in claim 1, wherein said new terminal is a different type of mobile terminal than said previous mobile terminal.

8. The method as claimed in claim 1, wherein said communication services include a push service and the registrar is a push proxy.

9. The method as claimed in claim 8, wherein said push proxy automatically stores said service information when the user terminal subscribes to said communication services.

10. A network architecture, comprising:
a plurality of terminals;
a radio access network, said radio access network containing elements providing information indicating the presence, status and/or location of said plurality of terminals;

a presence server, said presence server adapted to receive said information indicating the presence, status and/or location of said plurality of terminals;

at least one communication service provider providing a plurality of communication services; and

a proxy server, said proxy server adapted to provide said plurality of communication services to said plurality of user terminals upon subscription thereto, wherein the proxy server stores and maintains service information related to said plurality of communication services and provides said service information in a single message sent in response to a request therefore from a user terminal.

11. The network architecture as claimed in claim 10, wherein said proxy server provides said service information in the payload of a notification message sent to the requesting terminal in response to said request.

12. The network architecture as claimed in claim 11, wherein said presence server, said proxy server and said plurality of user terminals send messages to each other according to the Session Initiation Protocol (SIP) and the notification message comprises a SIP NOTIFY response.

13. The network architecture as claimed in claim 12, wherein said request comprises a SIP SUBSCRIBE message.

14. The network architecture as claimed in claim 11, wherein, when said proxy server receives said request from a user terminal, it re-subscribes the user to the ongoing subscriptions for which service information is stored therein.

15. The network architecture as claimed in claim 11, wherein said user terminal sends said request after it experiences failure.

16. The network architecture as claimed in claim 11, wherein, when a user switches to a new user terminal from a previous user terminal, the new user terminal sends said request to said proxy server.

17. The network architecture as claimed in claim 16, wherein the new user terminal is a different type of user terminal than said previous user terminal.

18. The method as claimed in claim 1, wherein said registrar comprises a SIP registrar, said subscription message comprises a SIP SUBSCRIBE message, said header comprises an event header, and said notification message comprises a SIP NOTIFY response.

19. The method as claimed in claim 18, wherein the user has a plurality of ongoing communication services at the time that the SIP SUBSCRIBE message containing a unique indication in the event header is sent.
20. The method as claimed in claim 19, wherein the payload of said SIP NOTIFY response includes service information for each one of said ongoing communication services.
21. The method as claimed in claim 18, wherein said SIP SUBSCRIBE message is sent after said user terminal experiences a failure.
22. The method as claimed in claim 21, wherein said service information included in the payload of said SIP NOTIFY response enables recovery of communication services to their state at the time of said terminal failure.
23. The method as claimed in claim 18, wherein said SIP SUBSCRIBE message is sent by a new terminal after said user switches terminals from a previous terminal to said new terminal.
24. The method as claimed in claim 18, wherein said new terminal is a different type of mobile terminal than said previous mobile terminal.
25. The method as claimed in claim 18, wherein said communication services include a push service and the SIP registrar is a push proxy.

26. The method as claimed in claim 25, wherein said push proxy automatically stores said service information when the user terminal subscribes to said communication services.

27. A proxy server, said proxy server being adapted to:

provide a plurality of communication services to a plurality of user terminals upon subscription of said user terminals to said communication services;

store and maintain service information related to said plurality of communication services; and

provide said service information in a single message sent in response to a request therefore from a user terminal.

28. The proxy server as claimed in claim 27, wherein said proxy server provides said service information in the payload of a notification message to the requesting user terminal.

29. The proxy server as claimed in claim 28, wherein the proxy server sends and receives message according to the Session Initiation Protocol (SIP) and the notification message comprises a SIP NOTIFY response.

30. The proxy server as claimed in claim 29, wherein said request comprises a SIP SUBSCRIBE message.

31. The proxy server as claimed in claim 28, wherein, when said proxy server receives said request from a user terminal, it re-subscribes the user to the ongoing subscriptions for which service information is stored therein.

32. A mobile terminal, said mobile terminal being adapted to:

receive a plurality of communication services;

send a subscription message to a registrar, a header in the subscription message

containing a unique identification;

receive a notification message sent from said registrar in response to said subscription message, the payload of said notification message including service information for said plurality of communication services; and

using said service information included in the payload of said notification message to continue said plurality of communication services.

33. The mobile terminal as claimed in claim 32, wherein said subscription message is sent after said mobile terminal experiences a failure.

34. The mobile terminal as claimed in claim 33, wherein said service information included in the payload of said notification message enables recovery of communication services to their state at the time of said mobile terminal failure.

36. The mobile terminal as claimed in claim 32, wherein said subscription message is a SIP SUBSCRIBE message, said header is an event header in the SIP SUBSCRIBE message and said notification message is a SIP NOTIFY response.